

## Sta. of Utah DEPARTMENT OF NATURAL RESOURCES Division of Oil, Gas & Mining

MICHAEL R. STYLER Executive Director

JOHN R. BAZA Division Director

February 15, 2006

TO:

Mineral File

FROM: Daron R. Haddock, Permit Supervisor, P.G.

RE:

Site Investigation of Limestone Cliffs above Staker Beck Street Quarry,

M/035/019, Salt Lake County, Utah

On February 14, 2006, Doug Jensen and I went to the Beck Street Quarry at the operator's request to investigate a natural cliff face and to discuss the permitting options in this area. We met Harry Carrington (sp?) at the Staker offices and he proceeded to take us on a tour of the site. The cliff face is on the boundary of the mine property, which adjoins property owned by Salt Lake City Corporation.

We first looked at the cliff from below and then drove to the upper part of the site where we could walk to the cliff area. A dozer (D9) was working just to the north of the cliff area pushing loose rock down the slope. It appeared that this area had recently been blasted and the dozer was clearing the loose rock in preparation for future drilling. The area just below the cliff had also been worked with 3 or 4 terraces remaining in the landscape.

The cliff face itself consists of a highly weathered limestone (Deseret) and is heavily fractured. The cliff face trends almost directly North and South and is nearly vertical with a slope ranging from 80 degrees to 90 degrees and even overhanging in one area. The limestone beds comprising the formation are dipping to the east at about 20 to 25 degrees. Numerous large rocks and boulders have fallen from the cliff face and have accumulated at the base of the cliff. It is apparent that the cliff face continues to have active rock falls. Due to the highly fractured and weathered nature of this formation, the area will continue to have active rock movement. This will occur with or without continued mining. However, mining and particularly blasting would have a tendency to accelerate the rock fall. If the cliff face is not removed during mining operations, a rockfall buffer zone should be installed at the base of the cliff as part of the reclamation plan.